

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1136	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 12:40
S4	292	83/178,183,184.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 15:11
S5	4	S1 and paper same pipe	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 12:40
S6	4	("1934660").URPN.	USPAT	OR	ON	2005/07/05 12:47
S7	14	("3993231"   "4084466"   "4227431"   "4291453"   "4302958"   "4649780"   "4748881"   "4779496"   "4794834"   "4930379"   "5014579"   "5383380"   "5457877"   "6101910").PN. OR ("6832536"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/05 13:09
S8	30	("0983387"   "1685127"   "1777316"   "1825925"   "1864903"   "2457310"   "2521003"   "2521385"   "3521004"   "3522748"   "3861254"   "4748881").PN. OR ("5383380").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/05 13:10
S9	16	("1685127"   "1952209"   "2365760"   "3161097"   "3861253"   "3933063").PN. OR ("4748881"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/05 13:14
S10	2	("4292867").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:20
S11	4	("4111084").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:21
S12	2	("3911768").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:21

## EAST Search History

S13	18	("0898732"   "0969858"   "2521003"   "3143014"   "3344696").PN. OR ("3911768").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/05 14:24
S14	8	("1075910").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:25
S15	8	("1110681").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:28
S16	0	("29501197").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:28
S17	0	("29501197").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:36
S18	2	("4292867").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 14:36
S19	2	("20040074350").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/05 19:03
S20	1136	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:03
S21	59	S20 and mandrel same groove	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:50
S22	3	S20 and mandrel same (groove with width)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:17

## EAST Search History

S23	14	("0460317"   "0811593"   "1042998"   "1242448"   "1984730"   "4487378"   "5271137"   "5453070"   "5755146").PN. OR ("6718853").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/05 19:11
S24	292	83/178,183,184.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:17
S25	1	S24 and mandrel same (groove with width)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:18
S26	18	S24 and mandrel same groove	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:23
S27	913	mandrel same (groove with width)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:23
S28	189	pipe and mandrel same (groove with width)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/05 19:25
S29	26	pipe and blade and mandrel same (groove with width)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/06 07:50
S30	0	("bladesame(mandrelandgroove)").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/06 08:24
S31	1232	blade same (mandrel and groove)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/06 08:24
S32	45	blade same (mandrel near groove)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/06 08:52

## EAST Search History

S33	4	("3709969").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/06 09:57
S34	1511	"408"/\$.ccls. and (chamfer\$5 or debur\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/07 15:12
S35	369	"408"/\$.ccls. and debur\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/07 16:14
S36	61	S35 and pipe	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/07 16:13
S37	178	"83"/\$.ccls. and debur\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/07 16:16
S38	15	S37 and pipe	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/07 16:17
S39	2	("3754832").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/07 16:17
S40	15	("0469354"   "0651337"   "1228951"   "3550482").PN. OR ("3754832"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/07 16:19
S41	31	("1531738"   "1662936"   "1750394"   "2204516"   "2556415"   "3118476"   "3137208"   "3672017"   "3754832"   "3817649"   "3872748"   "4205493"   "4229129"   "4743146"   "4798503"   "4955165"   "5004383"   "5007778"   "5401125"   "5810522"   "5853272"   "5961382"   "6092293"   "6146067").PN. OR ("6835029"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/07 16:20

## EAST Search History

S42	7	("3200540"   "3290834"   "4063471").PN. OR ("5961382").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/07 16:20
S43	11	("3137208"   "3365773"   "3802793").PN. OR ("5004383").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/07/07 17:06
S44	1740	insert and (AB with type)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/08 14:38
S45	192	insert same (AB with type)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/08 14:39
S46	1136	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/10 19:00
S47	259	S46 and blades	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/10 19:00
S48	48	S46 and blades same width	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/10 19:00
S49	68	S46 and blades same thick\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/07/10 19:12
S50	0	("29501197").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/10 19:12
S51	0	("29501197").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/10 19:13

## EAST Search History

S52	0	("29501197.1").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/07/10 19:13
S53	1141	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:50
S54	5	S53 and mandrel near groove	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:54
S55	0	S53 and mandrel near peieces	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:54
S56	44	S53 and mandrel same pieces	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:54
S57	101	S53 and mandrel same (pieces or sections)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/11/11 10:54
S58	2	("6925915").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/11/14 15:44
S59	2	("6694213").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/11/14 15:05
S60	4	("4849668"   "5170103"   "5315203"   "5558477").PN. OR ("6925915").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/11/14 15:06
S61	8	("4031368"   "4409659"   "4724524"   "4741230"   "4849668"   "5170103"   "5485053"   "5913955").PN. OR ("6694213").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/11/14 15:07

## EAST Search History

S62	2	("5687462").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/11/14 15:45
S63	2	("6146060").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/11/14 15:45
S64	12524	cut\$4 and core and mandrel	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 15:56
S65	1144	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 15:56
S66	49	S64 and S65	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:56
S67	60941	core with cut\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:56
S68	1832982	S67 and blade or disc	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:56
S69	5263	(core with cut\$4) same blade	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:56
S70	206	(core with cut\$4) same (blade and mandrel)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:57
S71	1144	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:57

## EAST Search History

S72	14	S70 and S71	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 16:58
S73	2	("5170684").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/04/02 16:58
S74	29	("3158074"   "3304819"   "3323399"   "3772945"   "3776070"   "3817137"   "3861252"   "3911768"   "3955455"   "4072073"   "4138911"   "4152958"   "4172399"   "4205573"   "4292867"   "4381083"   "4476453"   "4517867"   "4591405"   "4649780"   "4744277"   "4930379").PN. OR ("5170684").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/02 17:16
S75	17	madrel same groove	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/02 17:28
S76	7	madrel same recess	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/02 17:33
S77	2	("20040074350").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/04/02 17:35
S78	46	madrel and (recess or grove)	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/02 17:35
S79	46	madrel and (recess or grove)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2006/04/02 17:36
S80	46	madrel and (recess or grove)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2006/04/02 17:36
S81	2	("3656377").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/04/02 18:56



## EAST Search History

S82	23997	(NC or numerical) adj control\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:02
S83	12804212	advantag\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:57
S84	98	S82 near S83	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:57
S85	1144	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:57
S86	0	S84 and S85	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:57
S87	13	S82 and S85	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 18:57
S88	25049	(CNC or NC or numerical) adj control\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:04
S89	15	S88 and S85	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:04
S90	0	S84 not S88	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:04
S91	98	S84 not S89	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:04

## EAST Search History

S92	270406	rotat\$4 near (speed or velocity)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:05
S93	6	S88 near S92	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/02 19:05
S94	2	("5476346").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/09/01 15:48
S95	2	("20040074350").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/09/04 17:50
S96	1146	82/47,48,85,91,101.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/04 17:45
S97	9	S96 and ink	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/04 17:45
S98	0	S95 and (ink adj adhesive)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/09/04 17:50
S99	2	("4292867").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/09/04 18:22